

Attorney Docket No. 10559-177001
Serial No. 09/771,374
Amendment dated July 21, 2004
Reply to Office Action dated April 21, 2004

Amendment to the Claims:

This listing of claims replaces all prior versions, and listings, of claims in the application:

1-3. (Canceled)

4. (Currently amended) The ~~technique~~ method according to claim [[3]] 18 wherein at least one of the computer processes is an isochronous process.

5. (Currently amended) The ~~technique~~ method according to claim [[3]] 18 wherein at least one of the computer processes is an asynchronous process.

6-8. (Canceled)

9. (Currently amended) The technique according to claim [[8]] 19 wherein at least one of the computer processes is an isochronous process.

10. (Currently amended) The technique according to claim [[8]] 19 wherein at least one of the computer processes is an asynchronous process.

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11-13. (Canceled)

14. (Currently amended) The apparatus according to claim
[[13]] 20 wherein at least one of the computer processes is an
isochronous process.

15. (Currently amended) The apparatus according to claim
[[13]] 20 wherein at least one of the computer processes is an
asynchronous process.

16. (Currently amended) The apparatus according to claim
[[11]] 20 wherein the controller device is a memory controller.

17. (Currently amended) The apparatus according to claim
[[11]] 20 wherein the shared ~~memory~~ resource is a shared memory
bank.

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Kindly substitute the following new claims for the
cancelled claims:

18. (New) A method, comprising:

assigning an access value and a priority value to each of a plurality of computer processes which request access to a shared computer resource, where the priority value can be high priority or low priority;

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during an first access cycle, first providing access to processes whose access value represents high priority and whose access value represents that access should still be granted during the access cycle, and after granting each access, adjusting an access value associated with said each access, to indicate that additional access has been granted;

determining, during said first access cycle, that all high priority requests have access values that indicate that no additional access should be granted;

responsive to said determining, in said first access cycle, providing access to low priority requests whose access values represent that access should be granted, and adjusting access values after granting the access; and

after determining that both the high priority requests and low priority requests each have access values that represent no

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further access should be granted in said first access cycle, starting a new access cycle with new access values and priority values.

19. (New) An article comprising a computer readable media which stores executable instructions for controlling access to a shared computer resource by at least two computer processes, the instructions, when executed, causing the computer to:

assign an access value and a priority value to each of a plurality of computer processes which request access to a shared computer resource, where the priority value can be high priority or low priority;

during a first access cycle, first provide access to processes whose access value represents high priority and whose access value represents that access should still be granted during the access cycle, and after granting each access, adjust an access value associated with said access to indicate that additional access has been granted;

determine, during said first access cycle, that all high priority requests have access values that indicate that no additional access should be granted;

responsive to said determining, in said first access cycle, provide access to low priority requests whose access values

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indicate that access should be granted, and adjust access values after granting the access; and

after determining that both the high priority requests and low priority requests each have access values that represent no further access should be granted in said first access cycle, start a new access cycle with new access values and priority values.

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20. (New) An apparatus, comprising:

Q a controller device, having a first port for connecting to a shared resource, and at least one second port for connecting to a plurality of different processes which are requesting access to the shared resource,

a memory operating to store access values,

said controller operating to:

assign an access value and a priority value to each of a plurality of computer processes which request access to a shared computer resource, where the priority value can be high priority or low priority, and store said values in said memory, during a first access cycle, first controlling said processes to provide access to processes whose access value represents high priority and whose access value represents that access should still be granted during the access cycle, and after granting

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each access, adjusting an access value associated with said access to indicate that additional access has been granted, determining, during said first access cycle, that all high priority requests have access values that indicate that no additional access should be granted, responsive to said determining, in said first access cycle, providing access to low priority requests whose access values represent that access should be granted, and adjusting access values after granting the access; and

after determining that both the high priority requests and low priority requests each have access values that represent no further access should be granted in said first access cycle, starting a new access cycle with new access values and priority values.
